

# PCT

## REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.

For Receiving Office use only

International Application No.

International Filing Date

Name of receiving Office and "PCT International Application"

Applicant's or agent's file reference (if desired) (12 characters maximum) **59338-B-PCT**

### Box No. I TITLE OF INVENTION

**DNA ENCODING SNORF33 RECEPTOR**

### Box No. II APPLICANT

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

**SYNAPTIC PHARMACEUTICAL CORPORATION**  
**215 College Road**  
**Paramus, New Jersey 07652**  
**United States of America**

☐ This person is also inventor.

Telephone No.

**None**

Facsimile No.

**None**

Teleprinter No.

**None**

State (that is, country) of nationality:

**United States of America**

State (that is, country) of residence:

**United States of America**

This person is applicant for the purposes of:

☐ all designated States

☒ all designated States except the United States of America

☐ the United States of America only

☐ the States indicated in the Supplemental Box

### Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

**BOROWSKY, Beth E.**  
**218 Park Street**  
**Montclair, New Jersey 07042**  
**United States of America**

This person is:

☐ applicant only

☒ applicant and inventor

☐ inventor only (If this check-box is marked, do not fill in below.)

State (that is, country) of nationality:

**United States of America**

State (that is, country) of residence:

**United States of America**

This person is applicant for the purposes of:

☐ all designated States

☐ all designated States except the United States of America

☒ the United States of America only

☐ the States indicated in the Supplemental Box

☒ Further applicants and or (further) inventors are indicated on a continuation sheet.

### Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE

The person identified below is hereby has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:

☒ agent

☐ common representative

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

**WHITE, John P.**  
**Cooper & Dunham LLP**  
**1185 Avenue of the Americas**  
**New York, New York 10036**  
**United States of America**

Telephone No.

**(212) 278-0400**

Facsimile No.

**(212) 391-0526**

Teleprinter No.

**None**

☐ Address for correspondence: Mark this check-box where no agent or common representative is has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

## Continuation of Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)

*If none of the following sub-boxes is used, this sheet should not be included in the request.*

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

OGOZALEK, Kristine L.  
25 Durand Place  
Rochelle Park, New Jersey 07662  
United States of America

This person is:

- ☐ applicant only  
☒ applicant and inventor  
☐ inventor only (If this check-box is marked, do not fill in below.)

State (that is, country) of nationality:

United States of America

State (that is, country) of residence:

United States of America

This person is applicant for the purposes of:

- ☐ all designated States ☐ all designated States except the United States of America ☒ the United States of America only ☐ the States indicated in the Supplemental Box

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

JONES, Kenneth A.  
136 East Main Street  
Bergenfield, New Jersey 07621  
United States of America

This person is:

- ☐ applicant only  
☒ applicant and inventor  
☐ inventor only (If this check-box is marked, do not fill in below.)

State (that is, country) of nationality:

United States of America

State (that is, country) of residence:

United States of America

This person is applicant for the purposes of:

- ☐ all designated States ☐ all designated States except the United States of America ☒ the United States of America only ☐ the States indicated in the Supplemental Box

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

This person is:

- ☐ applicant only  
☐ applicant and inventor  
☐ inventor only (If this check-box is marked, do not fill in below.)

State (that is, country) of nationality:

State (that is, country) of residence:

This person is applicant for the purposes of:

- ☐ all designated States ☐ all designated States except the United States of America ☐ the United States of America only ☐ the States indicated in the Supplemental Box

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

This person is:

- ☐ applicant only  
☐ applicant and inventor  
☐ inventor only (If this check-box is marked, do not fill in below.)

State (that is, country) of nationality:

State (that is, country) of residence:

This person is applicant for the purposes of:

- ☐ all designated States ☐ all designated States except the United States of America ☐ the United States of America only ☐ the States indicated in the Supplemental Box

☐ Further applicants and or (further) inventors are indicated on another continuation sheet

**Box No.V DESIGNATION STATES**

The following designations are hereby made under Rule 4.9(a) (mark the applicable check-boxes; at least one must be marked):

**Regional Patent**

- ☒ **AP** **ARIPO Patent:** GH Ghana, GM Gambia, KE Kenya, LS Lesotho, MW Malawi, SD Sudan, SL Sierra Leone, SZ Swaziland, TZ United Republic of Tanzania, UG Uganda, ZW Zimbabwe, and any other State which is a Contracting State of the Harare Protocol and of the PCT
- ☒ **EA** **Eurasian Patent:** AM Armenia, AZ Azerbaijan, BY Belarus, KG Kyrgyzstan, KZ Kazakhstan, MD Republic of Moldova, RU Russian Federation, TJ Tajikistan, TM Turkmenistan, and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT
- ☒ **EP** **European Patent:** AT Austria, BE Belgium, CH and LI Switzerland and Liechtenstein, CY Cyprus, DE Germany, DK Denmark, ES Spain, FI Finland, FR France, GB United Kingdom, GR Greece, IE Ireland, IT Italy, LU Luxembourg, MC Monaco, NL Netherlands, PT Portugal, SE Sweden, and any other State which is a Contracting State of the European Patent Convention and of the PCT
- ☒ **OA** **OAPI Patent:** BF Burkina Faso, BJ Benin, CF Central African Republic, CG Congo, CI Côte d'Ivoire, CM Cameroon, GA Gabon, GN Guinea, GW Guinea-Bissau, ML Mali, MR Mauritania, NE Niger, SN Senegal, TD Chad, TG Togo, and any other State which is a member State of OAPI and a Contracting State of the PCT (if other kind of protection or treatment desired, specify on dotted line)

**National Patent (if other kind of protection or treatment desired, specify on dotted line):**

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> <b>AE</b> United Arab Emirates                        | <input checked="" type="checkbox"/> <b>LR</b> Liberia  |
| <input checked="" type="checkbox"/> <b>AL</b> Albania                                     | <input checked="" type="checkbox"/> <b>LS</b> Lesotho  |
| <input checked="" type="checkbox"/> <b>AM</b> Armenia                                     | <input checked="" type="checkbox"/> <b>LT</b> Lithuania  |
| <input checked="" type="checkbox"/> <b>AT</b> Austria                                     | <input checked="" type="checkbox"/> <b>LU</b> Luxembourg   |
| <input checked="" type="checkbox"/> <b>AU</b> Australia                                   | <input checked="" type="checkbox"/> <b>LV</b> Latvia   |
| <input checked="" type="checkbox"/> <b>AZ</b> Azerbaijan                                  | <input checked="" type="checkbox"/> <b>MA</b> Morocco  |
| <input checked="" type="checkbox"/> <b>BA</b> Bosnia and Herzegovina                      | <input checked="" type="checkbox"/> <b>MD</b> Republic of Moldova  |
| <input checked="" type="checkbox"/> <b>BB</b> Barbados                                    | <input checked="" type="checkbox"/> <b>MG</b> Madagascar   |
| <input checked="" type="checkbox"/> <b>BG</b> Bulgaria                                    | <input checked="" type="checkbox"/> <b>MK</b> The former Yugoslav Republic of Macedonia                      |
| <input checked="" type="checkbox"/> <b>BR</b> Brazil                                      | <input checked="" type="checkbox"/> <b>MN</b> Mongolia   |
| <input checked="" type="checkbox"/> <b>BY</b> Belarus                                     | <input checked="" type="checkbox"/> <b>MW</b> Malawi   |
| <input checked="" type="checkbox"/> <b>CA</b> Canada                                      | <input checked="" type="checkbox"/> <b>MX</b> Mexico   |
| <input checked="" type="checkbox"/> <b>CH</b> and <b>LI</b> Switzerland and Liechtenstein | <input checked="" type="checkbox"/> <b>NO</b> Norway   |
| <input checked="" type="checkbox"/> <b>CN</b> China                                       | <input checked="" type="checkbox"/> <b>NZ</b> New Zealand  |
| <input checked="" type="checkbox"/> <b>CR</b> Costa Rica                                  | <input checked="" type="checkbox"/> <b>PL</b> Poland   |
| <input checked="" type="checkbox"/> <b>CU</b> Cuba  | <input checked="" type="checkbox"/> <b>PT</b> Portugal   |
| <input checked="" type="checkbox"/> <b>CZ</b> Czech Republic                              | <input checked="" type="checkbox"/> <b>RO</b> Romania  |
| <input checked="" type="checkbox"/> <b>DE</b> Germany                                     | <input checked="" type="checkbox"/> <b>RU</b> Russian Federation   |
| <input checked="" type="checkbox"/> <b>DK</b> Denmark                                     | <input checked="" type="checkbox"/> <b>SD</b> Sudan  |
| <input checked="" type="checkbox"/> <b>DM</b> Dominica                                    | <input checked="" type="checkbox"/> <b>SE</b> Sweden   |
| <input checked="" type="checkbox"/> <b>EE</b> Estonia                                     | <input checked="" type="checkbox"/> <b>SG</b> Singapore  |
| <input checked="" type="checkbox"/> <b>ES</b> Spain                                       | <input checked="" type="checkbox"/> <b>SI</b> Slovenia   |
| <input checked="" type="checkbox"/> <b>FI</b> Finland                                     | <input checked="" type="checkbox"/> <b>SK</b> Slovakia   |
| <input checked="" type="checkbox"/> <b>GB</b> United Kingdom                              | <input checked="" type="checkbox"/> <b>SL</b> Sierra Leone   |
| <input checked="" type="checkbox"/> <b>GD</b> Grenada                                     | <input checked="" type="checkbox"/> <b>TJ</b> Tajikistan   |
| <input checked="" type="checkbox"/> <b>GE</b> Georgia                                     | <input checked="" type="checkbox"/> <b>TM</b> Turkmenistan   |
| <input checked="" type="checkbox"/> <b>GH</b> Ghana                                       | <input checked="" type="checkbox"/> <b>TR</b> Turkey   |
| <input checked="" type="checkbox"/> <b>GM</b> Gambia                                      | <input checked="" type="checkbox"/> <b>TT</b> Trinidad and Tobago  |
| <input checked="" type="checkbox"/> <b>HR</b> Croatia                                     | <input checked="" type="checkbox"/> <b>TZ</b> United Republic of Tanzania                                    |
| <input checked="" type="checkbox"/> <b>HU</b> Hungary                                     | <input checked="" type="checkbox"/> <b>UA</b> Ukraine  |
| <input checked="" type="checkbox"/> <b>ID</b> Indonesia                                   | <input checked="" type="checkbox"/> <b>UG</b> Uganda   |
| <input checked="" type="checkbox"/> <b>IL</b> Israel                                      | <input checked="" type="checkbox"/> <b>US</b> United States of America                                       |
| <input checked="" type="checkbox"/> <b>IN</b> India                                       | <b>continuation-in-part (see Page 5)</b>   |
| <input checked="" type="checkbox"/> <b>IS</b> Iceland                                     | <input checked="" type="checkbox"/> <b>UZ</b> Uzbekistan   |
| <input checked="" type="checkbox"/> <b>JP</b> Japan                                       | <input checked="" type="checkbox"/> <b>VN</b> Viet Nam   |
| <input checked="" type="checkbox"/> <b>KE</b> Kenya                                       | <input checked="" type="checkbox"/> <b>YU</b> Yugoslavia   |
| <input checked="" type="checkbox"/> <b>KG</b> Kyrgyzstan                                  | <input checked="" type="checkbox"/> <b>ZA</b> South Africa   |
| <input checked="" type="checkbox"/> <b>KP</b> Democratic People's Republic of Korea       | <input checked="" type="checkbox"/> <b>ZW</b> Zimbabwe   |
| <input checked="" type="checkbox"/> <b>KR</b> Republic of Korea                           | Check-boxes reserved for designating States which have become party to the PCT after issuance of this sheet: |
| <input checked="" type="checkbox"/> <b>KZ</b> Kazakhstan                                  | <input checked="" type="checkbox"/> <b>MZ</b> Mozambique   |
| <input checked="" type="checkbox"/> <b>LC</b> Saint Lucia                                 | <input type="checkbox"/>   |
| <input checked="" type="checkbox"/> <b>LK</b> Sri Lanka                                   | <input type="checkbox"/>   |

**Precautionary Designation Statement:** In addition to the designations made above, the applicant also makes under Rule 4.9(b) all other designations which would be permitted under the PCT except any designation(s) indicated in the Supplemental Box as being excluded from the scope of this statement. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit. (Confirmation (including fees) must reach the receiving Office within the 15-month time limit.)

<b>Box No. VI PRIORITY CLAIM</b>		<input type="checkbox"/> Further priority claim indicated in the Supplemental Box.		
Filing date of earlier application (day/month/year)	Number of earlier application	Where earlier application is:		
		national application: country	regional application: regional Office	international application: receiving Office
item (1) 28.05.99 (28 May 1999)	09/322,257	US		
item (2) 06.10.99 (6 October 1999)	09/413,433	US		
item (3)				
<input checked="" type="checkbox"/> The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) (only if the earlier application was filed with the Office which for the purposes of the present international application is the receiving Office) identified above as item(s): <u>1-2</u>				
<small>* Where the earlier application is an ARIPO application, it is mandatory to indicate in the Supplemental Box at least one country party to the Paris Convention for the Protection of Industrial Property for which that earlier application was filed (Rule 4.10(b)(ii)). See Supplemental Box.</small>				
<b>Box No. VII INTERNATIONAL SEARCHING AUTHORITY</b>				
Choice of International Searching Authority (ISA) <small>(if two or more International Searching Authorities are competent to carry out the international search, indicate the Authority chosen; the two-letter code may be used):</small>		Request to use results of earlier search: reference to that search (if an earlier search has been carried out by or requested from the International Searching Authority): Date (day/month/year)      Number      Country (or regional Office)		
ISA / US				
<b>Box No. VIII CHECK LIST: LANGUAGE OF FILING</b>				
This international application contains the following number of sheets: request : 6 description (excluding sequence listing part) : 197 claims : 33 abstract : 1 drawings : 28 sequence listing part of description : 18 Total number of sheets : 283		This international application is accompanied by the item(s) marked below: 1. <input checked="" type="checkbox"/> fee calculation sheet 2. <input type="checkbox"/> separate signed power of attorney 3. <input type="checkbox"/> copy of general power of attorney: reference number, if any: 4. <input type="checkbox"/> statement explaining lack of signature 5. <input type="checkbox"/> priority document(s) identified in Box No. VI as item(s): 6. <input type="checkbox"/> translation of international application into (language): 7. <input type="checkbox"/> separate indications concerning deposited microorganism or other biological material 8. <input checked="" type="checkbox"/> nucleotide and/or amino acid sequence listing in computer readable form 9. <input checked="" type="checkbox"/> other (specify): Transmittal Letter, Attachment A		
Figure of the drawings which should accompany the abstract:		Language of filing of the international application: English		
<b>Box No. IX SIGNATURE OF APPLICANT OR AGENT</b>				
Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request).				
SYNAPTIC PHARMACEUTICAL CORPORATION				
NAME: Kathleen P. Mullinix		Date		
TITLE: President & CEO				

For receiving Office use only	
1. Date of actual receipt of the purported international application: 3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application: 4. Date of timely receipt of the required corrections under PCT Article 11(2): 5. International Searching Authority (if two or more are competent): ISA /	2. Drawings: <input type="checkbox"/> received: <input type="checkbox"/> not received: 6. <input type="checkbox"/> Transmittal of search copy delayed until search fee is paid.

For International Bureau use only
Date of receipt of the record copy by the International Bureau:

Box No. VI PRIORITY CLAIM		<input type="checkbox"/> Further priority claims indicated in the Supplemental Box.		
Filing date of earlier application (day/month/year)	Number of earlier application	Where earlier application is:		
		national application: country	regional application: regional Office	international application: receiving Office
item (1) 28.05.99 (28 May 1999)	09/322,257	US		
item (2) 06.10.99 (6 October 1999)	09/413,433	US		
item (3)				

☒ The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) (only if the earlier application was filed with the Office which for the purposes of the present international application is the receiving Office) identified above as item(s): 1-2

\* Where the earlier application is an ARIPO application, it is mandatory to indicate in the Supplemental Box at least one country party to the Paris Convention for the Protection of Industrial Property for which that earlier application was filed (Rule 4.10(b)(iii)). See Supplemental Box.

## Box No. VII INTERNATIONAL SEARCHING AUTHORITY

Choice of International Searching Authority (ISA)  
(if two or more International Searching Authorities are competent to carry out the international search, indicate the Authority chosen; the two-letter code may be used):

ISA / US

Request to use results of earlier search; reference to that search (if an earlier search has been carried out by or requested from the International Searching Authority):

Date (day/month/year)

Number

Country (or regional Office)

## Box No. VIII CHECK LIST; LANGUAGE OF FILING

This international application contains the following number of sheets:

request : 6  
description (excluding  
sequence listing part) : 197  
claims : 33  
abstract : 1  
drawings : 28  
sequence listing part  
of description : 18

Total number of sheets : 283

This international application is accompanied by the item(s) marked below:

1. ☒ fee calculation sheet
2. ☐ separate signed power of attorney
3. ☐ copy of general power of attorney: reference number, if any:
4. ☐ statement explaining lack of signature
5. ☐ priority document(s) identified in Box No. VI as item(s):
6. ☐ translation of international application into (language):
7. ☐ separate indications concerning deposited microorganism or other biological material
8. ☒ nucleotide and/or amino acid sequence listing in computer readable form
9. ☒ other (specify): **Statement of Compliance Under §1.821(f), Transmittal Letter, Attachment A**

Figure of the drawings which should accompany the abstract:

Language of filing of the international application: English

## Box No. IX SIGNATURE OF APPLICANT OR AGENT

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request).

Beth E. Borowsky

Date

Kristine L. Ogozalek

Date

Kenneth A. Jones

Date

For receiving Office use only

1. Date of actual receipt of the purported international application:	2. Drawings:  <input type="checkbox"/> received:  <input type="checkbox"/> not received:
3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:	
4. Date of timely receipt of the required corrections under PCT Article 11(2):	
5. International Searching Authority (if two or more are competent): ISA /	
6. <input type="checkbox"/> Transmittal of search copy delayed until search fee is paid.	

For International Bureau use only

Date of receipt of the record copy by the International Bureau:

**Supplemental Box**

If the Supplemental Box is not used, this sheet should not be included in the request.

1. If, in any of the Boxes, the space is insufficient to furnish all the information: in such case, write "Continuation of Box No. ..." [indicate the number of the Box] and furnish the information in the same manner as required according to the captions of the Box in which the space was insufficient, in particular:

- (i) if more than two persons are involved as applicants and/or inventors and no "continuation sheet" is available: in such case, write "Continuation of Box No. III" and indicate for each additional person the same type of information as required in Box No. III. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below;
- (ii) if, in Box No. II or in any of the sub-boxes of Box No. III, the indication "the States indicated in the Supplemental Box" is checked: in such case, write "Continuation of Box No. II" or "Continuation of Box No. III" or "Continuation of Boxes No. II and No. III" (as the case may be), indicate the name of the applicant(s) involved and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is applicant;
- (iii) if, in Box No. II or in any of the sub-boxes of Box No. III, the inventor or the inventor/applicant is not inventor for the purposes of all designated States or for the purposes of the United States of America: in such case, write "Continuation of Box No. II" or "Continuation of Box No. III" or "Continuation of Boxes No. II and No. III" (as the case may be), indicate the name of the inventor(s) and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is inventor;
- (iv) if, in addition to the agent(s) indicated in Box No. II, there are further agents: in such case, write "Continuation of Box No. II" and indicate for each further agent the same type of information as required in Box No. II;
- (v) if, in Box No. I, the name of any State (or OAPI) is accompanied by the indication "patent of addition," or "certificate of addition," or if, in Box No. I, the name of the United States of America is accompanied by an indication "continuation" or "continuation-in-part": in such case, write "Continuation of Box No. I" and the name of each State involved (or OAPI), and after the name of each such State (or OAPI), the number of the parent title or parent application and the date of grant of the parent title or filing of the parent application;
- (vi) if, in Box No. I, there are more than three earlier applications whose priority is claimed: in such case, write "Continuation of Box No. I" and indicate for each additional earlier application the same type of information as required in Box No. I;
- (vii) if, in Box No. I, the earlier application is an ARIPO application: in such case, write "Continuation of Box No. I", specify the number of the item corresponding to that earlier application and indicate at least one country party to the Paris Convention for the Protection of Industrial Property or one Member of the World Trade Organization for which that earlier application was filed.

2. If, with regard to the precautionary designation statement contained in Box No. I, the applicant wishes to exclude any State(s) from the scope of that statement: in such case, write "Designation(s) excluded from precautionary designation statement" and indicate the name or two-letter code of each State so excluded.

3. If the applicant claims, in respect of any designated Office, the benefits of provisions of the national law concerning non-prejudicial disclosures or exceptions to lack of novelty: in such case, write "Statement concerning non-prejudicial disclosures or exceptions to lack of novelty" and furnish that statement below

Continuation of Box V.: U.S. Serial No. 09/413,433, filed October 6, 1999, a continuation-in-part of U.S. Serial No. 09/322,257, filed May 28, 1999.